INDEX TO VOLUME XXI.

DECEMBER 30, 1848.

This Index completes the volume for 1848, and may be considered as No. 53 for that year.

A

A good project....226
A dangerous ride....134
A good example, worthy of imitation [145
A word with the railroad interest, and [the profession having it in charge, [161
Accidents on railway....196, 729, 785
Address to the people of N. Jersey.500
Air engines for railroads and common [roads.. 20
Air line, N. Y. and Boston, and the [Hudson river railroad.118, 135
Alton and Springfield railroad....322
Alkali and chlorine, manufacture of
American enterprise....178
American lakes, and their commerce [in 1847..194
Animal power....99
Antique steam engine....387
Anthracite coal in locomotives.20, 537
" " furnaces....258
Artesian well at Venice....340
Artificial or indurated stone..180, 614
Axle guards and buffers....581
Artificial stone, important discovery. [469
Atmospheric railways, progress of.260 [40
Atlantic cities, distance to the Pacific [and to China.9.11
Atlantic and Pacific ocean, intercom- [munication between.7, 274 [547, 676
" Dock, Brooklyn.... 18

B

Baltimore and its railroads....258
Bars, Shaw's improved....437
Baltimore and Ohio railroad, its ex- [tension.17
Bank's steel tyres....453
Beginning of the end....353
Brake, Grigg's band and pulley.. 691
Brake, new, railway....418
Bridge Tubular....20
Bridge building....537
Bridge, Dee....353
" Niagara suspension...98, 212
" Riders improved, iron truss.753 [769, 775
" Conway, tubular.282, 423, 776
" " " completed..323
" Croton aqueduct....546
" iron suspension in Russia..237
Bridges, girder, on railroad.... 98
Bridges, materials for....437
Bridges, railway, wrought iron....729
" suspension, new plan for rail- [ways.. 40
" iron truss....579, 729
" tubular, who is the inventor.565 [584
" tubular, Conway and Brittania [761, 776
" cast iron....226
Boston and Albany railroad, early his- [tory of..721

C

Canals, N. York state....102, 690, 803
" " commerce of.... 4
" companies, carriers of goods [83
" Illinois....129
" " and Michigan....226
" Penn'a rates of freight..241
" Wabash and Erie.....273, [339, 421, 470, 505, 520, 579
" new....247
" around falls of St. Mary.498
" opening of....178
" appropriations....233
" English....421
" Del. & Hudson report..276, [657
" & railroad co., N. Haven.65
Canals, Virginia....803
Car wheels, new patent.... 65
Car springs India rubber....102
" factory, Norwich, Conn...211, 657
" for curves, new....212
" axles, hammered....593
" brake, new railroad....212
Cast iron railway chairs....401
Cast iron chilled and not chilled...227
Canadian railways,....357
Camden and Amboy railroad and Del- [aware and Raritan canal....483
Cattle on railways.... 87
Cheap freight between New York and [Philadelphia..482
Chemical and electrieal forces, by Prof. [Faraday..628, 645, 664
Changes produced by railroads....785
Charlotte and S. Carolina railroad.379
City of Cairo, Ill., central Illinois rail- [road..759
Coal trade of Pennsylvania...18, 274, [409, 160, 372,389, 337, 420, 437, [499, 485, 550, 545, 546, 573,594, [610, 628,642, 657, 676, 693, 713, [725, 738, 754, 770, 786, 802
Coal instead of wood for locomotives [581
Coal boilers, patent....593
Comparative rates of freight and fare [on the principal American rail- [roads..82
Correction of rates of fare....563
Copper, large mass of....634
Cornish engines....113
Croton aqueduct by Schramke....113
Crimple viaduct....113
Coast survey, report of superintendent [306
Cotton statistics of Griffin....546
Compressed air locomotives...599, 741
" " railway brakes...680
Commutation tickets.... 481
Copper ore, smelting, improved process [615
" " " and mining.....582
" " " mining on Lake Su- [perior..105, 579
Competent men, at a liberal compensa- [tion..709
Combustion of fuel....681
Comparative trade and traffic on En- [glish railways in 1847..
Comparative statement of nine rail- [roads..168, 132
Coupling for railroad cars, imp...177
Cost in detail of transporting coal on [Reading railroad..265
Cost of running passenger and freight [trains on Reading railroad.265
Conway tubular bridge, placing it in [position,..282, 323, 423
Commercial distress and railways in [Gt. Britain in 1847..535
Coke, new property of....680
Comparative receipts on So. Carolina [railroad..593
Collisions on railroads, to prevent.713
Coupling box for railroad cars, self [connecting and self detaching.177
Cuyahoga works....242

D

Damages, land against railroad com- [panies..530
" Pennsylvania railroad..531
" land....257
" awarded for loss of life by [railroads in France..161
Depreciation of railway stock.212, 738
Desolation of New England forests by [the modern Mastodon or Mam- [moth..581
Diamonds into coke, conversion of.614
Dividends in England railway....728
Distance from Atlantic cities to the Pacific, China, &c.9, 11
Dock property, Port Grimsby.... 20
Dry Dock, Brooklyn....18
Drainage of railway slopes....473
Duties of shareholders and directors.151

E

Electrical telegraph, improvements in [630, 713
Emperor of Russia, his loans.... 82
English railroad traffic returns.227,269
English railway statistics....584, 600
" " traffic....610
" " reports....612
" " poor rates.... 49
Engines, patent, steamboat, Maudsley [and Field..289
Engines, Cornish....241
" the Wickstead....422
" counter....183
Engine builders and engineers.10, 417
Erie canal, enlargement of.... 97
Error corrected....337
Ewbank's hydraulics....629
Extraordinary railroad travelling.. 20
Extraordinary discovery....274
Explosion of locomotive engines on [Reading railroad..550, 554

F

Fares, passenger on English railways, [803
Fares and freights on railroads, com- [parative rates..82
Fare reduced....418, 514, 321
Fires at sea, mode of extinguishing [777
First locomotive in Vermont....386
First cotton factory in the U. S....194
First boat on lake Erie....227
Forgetfulness of mankind....739
Foreign patent laws.... 21
Freight and fare on 68 railroads .467, [489
" " relative rates of..481
French railways and the Republic.375
" " during the revolution [233
" " and government..423, [738
" " repairs....353
Furnaces, dimensions of, and iron ma- [nufacture..321, 370
Fuel, combustion of....681

G

Gauges, comparative value of....549
Gauge, new steam....20, 257
" mixed....113, 195, 323
Gas, from water....728
General railroad laws of N. York..454 [739
Geological distribution of the elements [of the mineral kingdom..266
Georgia and South Carolina....129
Gold mines in Canada....617
" " Russia....251
Grimsby Dock property....20
Girder bridges on railways....98
Greenville and Roanake R. R..102-103
Great Britain, commercial distress of, [and railways in 1847, 535
" " railway system of....708
Gutta percha....152, 769
Gunpowder on railways....803

H

Hartford and New Haven railroad.36
Heavy engines. and heavier rails..234
" locomotives....113, 727
Heckrotte's improved coupling....177
History of railroads, early.675,706,721
High locomotive speed, 8 feet drivers, [612
Horse power....178
Hydrostatic turn tables....179

I

Iron vessels, the Josephine of Liverpool [21, 681
" steamer Courier....162
" Trade in United States...49, 161 [226, 545, 594, 613, 630
" " in England and its prospects [and railways in G. Britain, [81, 210, 599, 633
" trade in England....289, 322
" " of the union and its influ- [ences..594
" going to England....209
" railroad made in the U. States.179
" manufacture, improvements of.. [261, 471
" " pure iron....473
" wrought,improvements in.580,679
" Talladega....513

INDEX TO VOLUME XXI.

DECEMBER 30, 1848.

This Index completes the volume for 1848, and may be considered as No. 53 for that year.

A

A good project....226
A dangerous ride....134
A good example, worthy of imitation [145
A word with the railroad interest, and [the profession having it in charge, [161
Accidents on railway....196, 729, 785
Address to the people of N. Jersey.500
Air engines for railroads and common [roads.. 20
Air line, N. Y. and Boston, and the [Hudson river railroad.118, 135
Alton and Springfield railroad....322
Alkali and chlorine, manufacture of
American enterprise....178
American lakes, and their commerce [in 1847..194
Animal power....99
Antique steam engine....387
Anthracite coal in locomotives.20, 537
" " furnaces....258
Artesian well at Venice....340
Artificial or indurated stone..180, 614
Axle guards and buffers....581
Artificial stone, important discovery. [469
Atmospheric railways, progress of.260 [40
Atlantic cities, distance to the Pacific [and to China.9.11
Atlantic and Pacific ocean, intercom- [munication between.7, 274 [547, 676
" Dock, Brooklyn.... 18

B

Baltimore and its railroads....258
Bars, Shaw's improved....437
Baltimore and Ohio railroad, its ex- [tension.17
Bank's steel tyres....453
Beginning of the end....353
Brake, Grigg's band and pulley.. 691
Brake, new, railway....418
Bridge Tubular....20
Bridge building....537
Bridge, Dee....353
" Niagara suspension...98, 212
" Riders improved, iron truss.753 [769, 775
" Conway, tubular.282, 423, 776
" " " completed..323
" Croton aqueduct....546
" iron suspension in Russia..237
Bridges, girder, on railroad.... 98
Bridges, materials for....437
Bridges, railway, wrought iron....729
" suspension, new plan for rail- [ways.. 40
" iron truss....579, 729
" tubular, who is the inventor.565 [584
" tubular, Conway and Brittania [761, 776
" cast iron....226
Boston and Albany railroad, early his- [tory of..721

C

Canals, N. York state....102, 690, 803
" " commerce of.... 4
" companies, carriers of goods [83
" Illinois....129
" " and Michigan....226
" Penn'a rates of freight..241
" Wabash and Erie.....273, [339, 421, 470, 505, 520, 579
" new....247
" around falls of St. Mary.498
" opening of....178
" appropriations....233
" English....421
" Del. & Hudson report..276, [657
" & railroad co., N. Haven.65
Canals, Virginia....803
Car wheels, new patent.... 65
Car springs India rubber....102
" factory, Norwich, Conn...211, 657
" for curves, new....212
" axles, hammered....593
" brake, new railroad....212
Cast iron railway chairs....401
Cast iron chilled and not chilled...227
Canadian railways,....357
Camden and Amboy railroad and Del- [aware and Raritan canal....483
Cattle on railways.... 87
Cheap freight between New York and [Philadelphia..482
Chemical and electrieal forces, by Prof. [Faraday..628, 645, 664
Changes produced by railroads....785
Charlotte and S. Carolina railroad.379
City of Cairo, Ill., central Illinois rail- [road..759
Coal trade of Pennsylvania...18, 274, [409, 160, 372,389, 337, 420, 437, [499, 485, 550, 545, 546, 573,594, [610, 628,642, 657, 676, 693, 713, [725, 738, 754, 770, 786, 802
Coal instead of wood for locomotives [581
Coal boilers, patent....593
Comparative rates of freight and fare [on the principal American rail- [roads..82
Correction of rates of fare....563
Copper, large mass of....634
Cornish engines....113
Croton aqueduct by Schramke....113
Crimple viaduct....113
Coast survey, report of superintendent [306
Cotton statistics of Griffin....546
Compressed air locomotives...599, 741
" " railway brakes...680
Commutation tickets.... 481
Copper ore, smelting, improved process [615
" " " and mining.....582
" " " mining on Lake Su- [perior..105, 579
Competent men, at a liberal compensa- [tion..709
Combustion of fuel....681
Comparative trade and traffic on En- [glish railways in 1847..
Comparative statement of nine rail- [roads..168, 132
Coupling for railroad cars, imp...177
Cost in detail of transporting coal on [Reading railroad..265
Cost of running passenger and freight [trains on Reading railroad.265
Conway tubular bridge, placing it in [position,..282, 323, 423
Commercial distress and railways in [Gt. Britain in 1847..535
Coke, new property of....680
Comparative receipts on So. Carolina [railroad..593
Collisions on railroads, to prevent.713
Coupling box for railroad cars, self [connecting and self detaching.177
Cuyahoga works....242

D

Damages, land against railroad com- [panies..530
" Pennsylvania railroad..531
" land....257
" awarded for loss of life by [railroads in France..161
Depreciation of railway stock.212, 738
Desolation of New England forests by [the modern Mastodon or Mam- [moth..581
Diamonds into coke, conversion of.614
Dividends in England railway....728
Distance from Atlantic cities to the Pacific, China, &c.9, 11
Dock property, Port Grimsby.... 20
Dry Dock, Brooklyn....18
Drainage of railway slopes....473
Duties of shareholders and directors.151

E

Electrical telegraph, improvements in [630, 713
Emperor of Russia, his loans.... 82
English railroad traffic returns.227,269
English railway statistics....584, 600
" " traffic....610
" " reports....612
" " poor rates.... 49
Engines, patent, steamboat, Maudsley [and Field..289
Engines, Cornish....241
" the Wickstead....422
" counter....183
Engine builders and engineers.10, 417
Erie canal, enlargement of.... 97
Error corrected....337
Ewbank's hydraulics....629
Extraordinary railroad travelling.. 20
Extraordinary discovery....274
Explosion of locomotive engines on [Reading railroad..550, 554

F

Fares, passenger on English railways, [803
Fares and freights on railroads, com- [parative rates..82
Fare reduced....418, 514, 321
Fires at sea, mode of extinguishing [777
First locomotive in Vermont....386
First cotton factory in the U. S....194
First boat on lake Erie....227
Forgetfulness of mankind....739
Foreign patent laws.... 21
Freight and fare on 68 railroads .467, [489
" " relative rates of..481
French railways and the Republic.375
" " during the revolution [233
" " and government..423, [738
" " repairs....353
Furnaces, dimensions of, and iron ma- [nufacture..321, 370
Fuel, combustion of....681

G

Gauges, comparative value of....549
Gauge, new steam....20, 257
" mixed....113, 195, 323
Gas, from water....728
General railroad laws of N. York..454 [739
Geological distribution of the elements [of the mineral kingdom..266
Georgia and South Carolina....129
Gold mines in Canada....617
" " Russia....251
Grimsby Dock property....20
Girder bridges on railways....98
Greenville and Roanake R. R..102-103
Great Britain, commercial distress of, [and railways in 1847, 535
" " railway system of....708
Gutta percha....152, 769
Gunpowder on railways....803

H

Hartford and New Haven railroad.36
Heavy engines. and heavier rails..234
" locomotives....113, 727
Heckrotte's improved coupling....177
History of railroads, early.675,706,721
High locomotive speed, 8 feet drivers, [612
Horse power....178
Hydrostatic turn tables....179

I

Iron vessels, the Josephine of Liverpool [21, 681
" steamer Courier....162
" Trade in United States...49, 161 [226, 545, 594, 613, 630
" " in England and its prospects [and railways in G. Britain, [81, 210, 599, 633
" trade in England....289, 322
" " of the union and its influ- [ences..594
" going to England....209
" railroad made in the U. States.179
" manufacture, improvements of.. [261, 471
" " pure iron....473
" wrought,improvements in.580,679
" Talladega....513

Iron, building in New York.....753
" pure.....473, 534
" Vicker's improvements.....216
" American, new puddling furnace [98
" pig, price of.....161
" patent for improvement..... 39
" tubes, lapwelded.....580
" and steel, method of welding.340
" wheels, chilled and cast.....353
" Lake Superior.....385
" railway sleepers.....410
" vessels.....681
Iron vessels, new method of construct- [ing..681
Iron improved manufacture, Crane's [patent...39
Invention, important.....273
India rubber, railway springs and buf- [fers..321
" " car springs with map.60, [609
" " " vulcanized..102
" " for railroad cars.....562
" " Fuller's patent.....625
Inclined planes against locomotive [power..609
Institution of mechanical engineers. 84
Improvement in railroad speed....642
" casting cylindrical pipes [39
" locomotives Pearsons.424
Influence of railroad regularity.... 98
Improved manufacture of rails.....4
Intercommunication between the Atlan- [tic and Pacific. 7
Influences of railways on property.178 [260
Improved railway sleepers.....371
Important decision in New Jersey.516

J

James river and Kanawha canal com- [pany's report for 1847, 312,328.342
Jervis, J. B., report on location of Hud- [son river railroad..146

K

Keys, railway to prevent shrinking745
Kirk's steam hammer.....566
Kyanizing timber..... 2

L

Lake Erie steamboats.....227
Lake Ontario, first boat on.....227
Lake Huron, silver and copper com- [pany..388
Lafayette and Indianapolis road...420
Land damages against railroads...513
Legal decision.....291
Legislative interference with railways [fare, etc..209
Legislation, New York and Erie rail- [road and Pennsylvania..162
Lead region and trade of upper Missis- [sippi..281
Liability of railway companies for re- [turned packages..226
" " cattle killed on [the track..271
Liability of railway companies for bag- [gage..391
Light engines and light trains. 663, 728 [820
Life boats, for ships and steamers..659
Lieut. Maury's letter on Virginia rail- [roads..517
" " Pacific railroad.546
Locomotive, compressed air.....599
Locomotives on the Reading road.264
Locomotive, Pierson's improved...424
Locomotives, for luggage trains as an [investment..67
" for inclined planes..562
" distance and timekeeper [50
" shops.....193
" speed, extraordinary.227
" new, four wheels seven
" works, Mattewan...321
" Lablache.....305
" engine, new.....340
" engine, Rogers, Ketch- [um and Grosvenor..371
Locomotive, Ritchie's improved754,760
" manfactory, new ...386
" engine, Taylor's im- [provements in.. 98
" ten wheel, N. York and [Erie railroad..564
" boiler for anthracite coal [578
" for steep grades, Seller's [plan..563, 647
" " Cathcart's..419
" Newton's improvements [648
" engines.....404
" wheels, Evans plan.473
" engine, novel mode.421
" " blast pipes..423
Lookout for the engine, while the bell [rings..305
Lost inventions.....388
Loss of life on railways, damages for [161
Low fares and increase of travel..514 [641
Lubricating composition.....453

M

Mails, comparative cost of transporta- [tion in the U. States and in Eng- [land..34
Mails between London and Paris.. 50
Manufacture of alkali and chlorine 50
Massachusetts, another railroad in.178
" the starting point....642
Materials, on the strength of.....377
Milk and the railroads.....435
Mining company, Upper Canada.. 50
" interest, copper, etc..... 25
Mixed Gauge on railroads..18-20-113
Mineral resources of the U. S.....23
" " " N. C.....23
Main stem or trunk lines.....114
Maudsley and Field's pat nt engines [for steamboats..289
Memorial to Congress for a post road [through N. Jersey..305
Money required for railroads.....582
Morse's telegraph.....753, 770

N

Nashville railroad.....,121
Napier's Foundry.....116
New York and Boston air line....118
New steam gague.....20
New Haven & Northampton railroad [Co. directors..65
New Jersey tax on travel and trade, 84
New pudling furnace.....98
New York canals for 1836 and 1847.102
Niagara suspension bridge.....98
New York and N Haven railroad.499
Northern New York railroad.....513
New York and Albany, railroad, loca- [tion..146, 166

O

Ores, treatment of..... 25, 757
Ohio public works.....122
Oregon, Whitney's railroad, (by W. [J.).114
Opening of the Penn. canals.....178
Ocean steam navigation, American.616

P

Parliament and railway companies 37
Parcel Traffic on English railways117 [153, 183
" on eastern railways.117
Patents, renewal of.....393
Patent laws, foreign.....21
Panama railroad.....817
Peruvian steamer Rimac.....113
Petersburgh, Va., railroad.....85
Penalty for overcharging.....482
Pins, American.....223
Pile driving, improved machine for599
Pipes, improved mode of casting...39
Plank roads not duly appreciated..787, [803
Plough, Loom and the Anvil..594, 615 [662
Progress of railroad in the U. S.786, 801
Postmast. gen. and the railroads..3, 5, [34, 660
Postoffice department " 88, 497
Preservation of timber.....697
Post office department at home and [abroad..386
Post routes in the United States... 1
Precious metals.....103
Principles of the mechanics of machi- [nery and engineering..402
Punching machine.....454
Prairie car.....642
Propellers, for vessels.....551
Portland company.....33
Poor rates in England.....49
Political reforms and railways....165
Portage railroad.....180
Present state of railway property in [England..376

R

Railroad, Oregon, or Atlantic and Pa- [cific..1, 117, 261, 546, 359, 676
" St. Lawrence and Atlantic [97, 131, 149, 577, 633
" Baltimore and Ohio....17, [402, 193
" Champlain and St.Lawrence [97
" Camden and Amboy...386, [373, 337, 353, 403, 419, 433, 450, [465, 483, 515, 561, 577, 562, 757, [671
" " " influence [of light in dark places upon..449, [513
" South western, Georgia..52, [49, 418, 162, 228
" Western and Atlantic, notice [to contractors..81
" Great western...97, 418, 484
" Baltimore and Susquehanna [193
" Georgia, & banking co .323
" Georgia contract.....339
" N. York and Erie..162, 355, [514, 593, 793
" Hudson river..533, 551, 281, [145
" from Maine to Georgia, as [investment,..66
" N. York and Albany, loca- [tion from Fishkill to Al- [bany..146, 166
" Reading, and coal trade.211, [271, 385, 402
" Pennsylvania..145, 372, 499, [561, 580, 567, 693, 786
" Northern, New Hampshire [250, 513
" Central, Ga.257, 260, 402, 433
" " Michigan.....435
" " Penn'a.545, 633, 803
" S. Carolina...626, 595, 610, [643, 370
" Boston and Montreal...609
" " " Maine..450, 696
" in the west..... 5, 178
" Items.....41
" monopoly in N. Jersey...81
" Main stem, or trunk line.119
" Connecticut river.....385
" Wilkes co., Ga.....402
" Galena and Chicago....408
" Wilmington & Raleigh.337
" Manchester & Lawrence.337
" Vicksburg and Jackson..417 [520
" Rochester and Lockport.118
" Kennebec and Portland..433 [801
" Richmond and Danville..63, [435
" Extension of the central west- [ern..435
" convention.....435
" Depot, new.....435
" the proposed to Mahanoy coal [field..450
" Harlem.....468
" connections.....489, 322
" Co., Petersburg and Roanoke [193
" Eastern.....498
" Little Miami and Ohio..499
Railroad monopoly in N. J.....89
Railroad charges in England 66
Railroads in the west.....5
Railroads, Canada.....357, 545
Railroads at the close of 1848.....817
Railroad accommodation.....116
" and steamboats, N. York and [N. Haven..499
" matters.....241, 258, 498
" Mad river and Lake Erie [401, 625, 670
" in Illinois.....388, 404
" in Ohio.....178
" Providence and Worcester [97
" Muscogee.....65, 146
" Lexington and new Madrid [513
" Belpre and Cincinnati..530
" Hartford and Providence.545
" Cumberland.....545
" Hudson river.....801
" Columbus (Ohio) and Lake [Erie.. 38
" Nashville.....121
" Columbia, receipts of.98, 145
" Bangor and Waterville..145
" wheels, new.....179
" Penn'a and Ohio.....194
" fare, N. York and Phila.226
" Cleveland and Pittsburgh [242, 322, 369, 226
" Mansfield and Sandusky. 43
" Nashville and Chattanooga [257, 369, 340, 260
" Michigan, Southern....257
" Charleston.....257
" Androscoggin and Kenne- [bec..258
" new Albany and Salem..258
" Mine Hill and Schuylkill [Haven..273
" Dayton and Cincinnati..274
" Montgomery and W. Point [321
" Vermont and Mass....322
" Alton and Springfield—322, [529
" Crawford and Indianapolis [385
" Wilmington Manchester.513
" Richmond and Danville. 625
" between Watertown and [Rome..625
" Cleveland, Columbus and [Cincinnati..641
" Saratoga and Whitehall.257 [804
" beneficial to health of cities [657
" direct from Syracuse to Ro- [chester..375
" Legislation in N. York..346
" Mobile and Ohio.....438
" Mine Hill.....401
" in Va, and their connections [517
" N. York.....529
" in Va. and N. Carolina.323
" Oswego and Syracuse...323
" Sangamon and Morgan, Co. [Ill..385
" in Maine....689, 737, 690, [802
" N. York and Phila.....689
" Washington branch.....691
" Western, or Boston and Al- [bany..706, 721
" Harrisburg, Portsmouth, Mt. [Joy and Lancaster rail- [road co...710
" Attica and Buffalo.....713
" in Cuba.....722
" Saratoga and Schenectady [729
" Schenectady and Troy..738
" Rensselaer and Saratoga.754
" Worcester and Nashua..769
" to the Pacific...773, 787, 805
" Troy and Greenbush....770
" Louisa railroad, extension of

Railways, what they do.....241
" and Christmas Hollidays 98
" a means of national defence, [gauge question..134
" demands for money.....582
" Junctions.....281
" and Real Estate.....305
" Station, Euston square..178
" Currency.....105
" accommodations...116, 213
" value, and prospective value [of..3
" influence of.....360, 178
" Liability of.....178, 266
" in England.....280
" " and the money pres- [sure..22, 376, 211
" slopes, drawing of.....473
" charges in England.....66
" Almospheric...260, 50, 581, [729
" Robbery.....178
Railways, a cause of distress or pros- [perity..180
Railway stock, depreciation of....121
" brake, self acting and self [relieving..225
Railway receipts, increase of.....82
Railway tactics in England.....211
Railway brake, Grigg's patent....691
" system of Gt. Britain....709
Railway bars, improved mode of roll- [ing..437
Railways and the postmaster gen....3
Railways and the money pressure in [England.22
Railways as an investment of capital [67
Railway currency.....1.05
Railways and political reforms....165
Railways in Indiana.....642
" in N. Hampshire...326, 566
Report, Hartford and N. Haven rail- [road, 12th annual..36
" Syracuse and Utica railroad co., [660
" Petersburg Va.....85, 597
" Western, Mass. 13th annual..99 [486
" Greenville and Roanoke.....102
" Fitchburg.....103
" Reading railroad...145, 247, 261
" Columbia annual for 1847...98, [163, 185
" Litile Miami " " 177, 193
" Allegheny Portage railroad for [1847..180
" Baltimore and Susquehanna 20th [annual..214
" Mansfield and Sandusky....243
" Rutland and Burlington.....245
" Massachusetts annual..259, 289,
" Boston and Maine.....275
" Delaware and Hudson canal.276
" Boston and Worcester.....290
" Michigan central.....277
" S. Carolina railroad co., annual [293
" Boston and Worcester, 16th an- [nual..308
" Camden and Amboy railroad, [and Delaware and Raritan [Canal..324
Report to Canadian parliament...357
" Morris canal and banking co. for [1848..389, 404, 424
" James river and Kanawha canal [co., for 1847, 312, 328, 342
" Wilmington and Raleigh, 12th [annual..340, 360
" Penn'a and Ohio canal.....369
" Dublin and Kingston.....372
" Patent office.....419
" Eastern railroad co. 12th annual [455
" Wabash and Erie canal.421, 436 456, 470, 505, 520
" Fitchburg railroad company 12th [annual..472
" Great Western " " 472
" of commissioners of sinking fund [487
" Mad river.....570
" Albany and Schenectady railroad [co..13¾, 633
" Erie " " " 650
" Baltimore and Ohio railroad 22d [annual..789, 801, 806, 823
" Auburn and Syracuse railroad [co..680
" " Rochester " 681
" Northern N. York railroad..723
" Cheshire N. Hampshire railroad, [3d annual..725
" Long Island railroad.....754
" Baltimore and Susquehanna.693
" Vermont central railroad, 3d an- [nual..754
" Northern N. Hampshire, 3d an- [nual..770
" Kennebec and Portland.....801 [785, 819
Report, Atlantic and St. Law. 132, 693
" on location of Hudson River [railroad..145
" Boston and Lowell.....259
" Galena and Chicago.....408
" Eastern railroad.....455
" Harlem railroad.....468
" in the U. S. senate on southern [mail route..660
" Albany and W. Stockbridge 770
" Kennebeck and Portland..821
" Western and Atlantic.....818
Receipts on Columbia, Pa., in 1847.98
Receipts on Western, Mass., railroad, [comparative..100
Receipts on the S. Carolina railroad [comparative..623
Reduction of cost, of working engines [499
Reservoirs superior to running streams [for power or canals..392
Railroadiana, or reminiscences of by [gone days..675, 706, 721
Rotary pump.....179
Remonstrance by Syracuse and Utica [railroad co..228
Riding in cars.....257
Raising coals by steam.....753
Reading railroad business in 1847.133
Rights of passengers on railroads.194
Rotary engine, another.....218
Rates of freight on Penn. canals..242
Repairs of locomotives on the Reading [railroad..265
Resistance to railway trains.377, 436, [568
Renewal of patents.....393
Reduction of rates, its influence upon [traffic..709
Rails, improved manufactory of with [cuts..4
Rates of toll on railroads.....195

S

Steam explosion, safety fuse.....632
" navigation, ocean, American en- [prise..612
" engine, new.....232
" improvements in...273
" boilers, explosion of.....273
" hammer, Kirk's.....566
Steamer Ocean, speed of.....291
" Philadelphia and Carrleston [546
Safety brake.....306
Screw piling.....326
See your ticket sir.....145
Suit decided.....418
Susquehanna extension.....546
Stytography, a new method of engrav- [ing..42
Silver ore, mode of separating..... 41
Silver ore, observations by Mr. Widder [41
Schuylkill Navigation company...721
Soap, soft and hard.....619
Steam engine, rotary.....218
Switches.....385
Safety lanthorns and miners.....728
Stage corches, disappearance.....769
Steam gague new.....20
Suspension bridge, company's plan, 40
Stytography, or a new mode of En- [graving...42
Steamboat explosion.....87
Suspension bridge, Niagara.....98
Steam carriage on common roads.250
Screw piling.....327
Sleepers, improved railway.....371
Strength of materials.....377
Steel tyres, Bank's patent.....453
Statistics of railroads in Mass....451
" English railway....584, 600
Stations, " " 584
Sellers' locomotive for inclined planes, [563, 647
Speed, high locomotive, 8ft drivers.712
Safety fuse, Stillman's patent.....632
Smelting copper ores.....645
Safety lauthorn.....728

T

Tax upon travel and trade, N. Jersey, [89.
To contractors.....449
Trade, Cincinnati and Wabash,..194
Telegraph, new, ...212
" in Holland.....98, 306
The Journal, its subscribers, and the [editor...209
Tennesse railroads.....85
The plough, the loom, and the anvil [594, 609, 662
The locomotive susquehanna.....450
Timber, incombustible, by Payne's pro- [cess,..536
Thomas Gray, the English railway [pioneer...35
Tunnel under Liverpool.....50
Troops, munitions of war, and U. S. mails on railroads..3
Traffic railway, 497, 418, 497, 513, 371
Track sprinkler 418
Turn table, new,.....681
Troubles.....458
Train, resistance to, ...377, 436, 568
Timber for sleepers, preservation of [697
Traffic, and the influences of reducing [rates in England..709
Telegraph, electric, ...713
" Morses claim to ...753, 770
Traffic, English railway,.....713
" Branch railway and light en- [gines,..728
Telegraph system, advantages of..804
Turntables, hydrostatic.....179
Timber preserved by Payne's process, [536
Tubular bridge, who invented it...565 [584
Tubes, lap welded.....580
Turntable, new.....681
Telegraph system, advantages of..804
Transportation of troops and munitions [of war..3
Transportation of cattle on railways.87
Tubular Wrought Iron Bridge.....20
Travelling extraordinary railway...20
Thomas Gray, the English railway [pioneer...35
Tunnel under Liverpool 50
Time and distance keeper, locomotive, [50
Traffic on English railways in 1847, Tennesse railroad.....85
Telegraph in Holland.....98
Taylor's improved locomotives.....98

V

Villages, railway.....729, 770
Vulcanised India rubber 102
Viaduct the crimple.....113
Value and prospective value of rail- [road stocks.3
Villages, railway.....729
Vicksburg and Brandon railroad..451
View of railways from Maine to [Georgia..66
Vicker's improvement in making iron [217

W

Working expenses of London and N. [Western railway..226
" on railways.....371
" Steam, expansively 227
Way fare from Trenton to N. Bruns- [wick..481
Wheels, improvement in.....346
" Iron, chilled and cast...353
Wire Ropes, Roebling's patent....566
Wheels, on the ballancing of.....710
Wrought iron tubnlar bridge.....20
Western railroad.....99
Working steam expansively.....227
Welding iron and steel.....340
Working expenses, comparative..371
Wire ropes, Roebling's patent.....566
Wrought iron bow string girder bridge [745

Y

York and Harrisburg, Col. Trimble's [report..215